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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/647,894	10/06/2000	John J. Egan	BKS 308 P2	6069

7590 04/18/2002
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EXAMINER

MULLINS, BURTON S

ART UNIT PAPER NUMBER

2834

DATE MAILED: 04/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/647,894

Applicant(s)

EGAN ET AL.

Examiner

Burton S. Mullins

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7, 13, 14, 16, 18, 20, 22, 28-32 and 34-49 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

- 5) ☒ Claim(s) 34-49 is/are allowed.

- 6) ☒ Claim(s) 1-5, 7, 13, 14, 16, 18, 20, 22 and 28-32 is/are rejected.

- 7) ☐ Claim(s) _____ is/are objected to.

- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.


BURTON S. MULLINS
PRIMARY EXAMINER

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Olsen et al. (US 4,88,998). Olsen teaches an impeller pump apparatus 20 including: a motor (in drive housing 40) having a stationary member (with stator electromagnets 13,30,32&33) and a submersible rotatable drive member (impeller 20); magnetic bearing means comprising stator electromagnets 13,30,32&33 in co-operation with respective impeller magnets 11,36,38&39 for supporting said impeller; and a submersible rotatable processing component (impeller vanes 21a-21c) carried by said impeller; said bearing means controlling axial and radial movement of impeller 20 relative to said stationary member (c.5, lines 51-c.6, line 5).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Olsen and Giardini et al. (US 3,932,069). Olsen does not teach that motor 30 is a switched reluctance motor, per se. Giardini teaches a variable reluctance motor used to drive a rotatable member of a submersible processing apparatus (a pump) in a closed chamber. The motor uses well-known synchronized, pulsed (switched) excitation (c.1, lines 48-63; c.2, lines 22-26). Variable reluctance motors provide an extremely simple structure for producing pumping action (abstract; c.4, lines 30-31).

It would have been obvious to one having ordinary skill in the art to employ the variable switched reluctance motor of Giardini to drive the apparatus of Olsen since these motors would be desirable for their simple structure for producing pumping action.

Double Patenting

5. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

6. Claims 1 and 3-4 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-3 of prior U.S. Patent No. 5,947,394 (US '394). This is a double patenting rejection. US '394 to Egan teaches a rotary disk paper pulp refiner system and method including: a motor 35 having a stationary member (stator/housing 12) and a submersible

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rotatable drive member (rotor 15), magnetic bearing means 40/42 and 44/48 for supporting said rotatable drive member, and a submersible rotatable processing component (refiner disk sets 16/17) carried by said rotatable drive member 15, said bearing means controlling axial (44/48) and radial (4042) movement of said rotatable drive member relative to said stationary member.

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 2, 5, 7, 13-14, 16, 18, 20, 22 and 28-32 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3 and 6-7 of U.S. Patent No. 5,947,394 (US '394) in view of Giardini et al. (US 3,932,069). US '394 to Egan discloses applicant's invention including refining plates (claims 6-7) but does not teach a variable speed switched reluctance motor. Giardini teaches a variable reluctance

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motor used to drive a rotatable member of a submersible processing apparatus (a pump) in a closed chamber. The motor uses well-known synchronized, pulsed (switched) excitation (c.1, lines 48-63; c.2, lines 22-26). Variable reluctance motors provide an extremely simple structure for producing pumping action (abstract; c.4, lines 30-31).

It would have been obvious to one having ordinary skill in the art to employ the variable switched reluctance motor of Giardini to drive the processing apparatus of US '394 since these motors would be desirable for their simple structure for producing pumping action.

Regarding claim 13, the rotor and rotatable pulp processing component in US '394 are integral since they form one piece.

Regarding claim 14, note axial and radial magnetic bearing sets 44/48 and 40/42 in US '394.

Regarding claims 18 and 22, axial bearings in US '394 control the axial position of the shaft and rotor and thereby controls the refining width of the respective refiner gaps 20 and 21 (c.4, lines 15-17).

Regarding claim 20, rotor 15 in US '394 has a first end carrying a first refiner plate 16 and a second end carrying a second refiner plate 17, a first end plate spaced axially from said first refiner plate and a second end plate spaced axially from said second refiner plate (Fig.1) with said first and second end plates and said stator (not numbered) defining an enclosed housing (Fig.1), a third refiner plate 18 mounted on said first end plate and axially spaced from said first refiner plate, a fourth refiner plate 19 mounted on said second end plate and axially spaced from said second refiner plate.

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Regarding claims 28-32, the generic steps are fulfilled by the apparatus of US '394 and Giardini. Note claims 7-9 of US '394 pertaining to a method of controlling paper stock refiner. In particular, combining the pulp processor of US '394 and drive motor of Giardini into an "integral unit" would have been obvious since Giardini teaches an "integral" rotor/pump with an extremely simply design.

Response to Arguments

9. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

10. Claims 34-49 are allowed. Claims 34-39 incorporate indicated allowable subject matter.

Conclusion

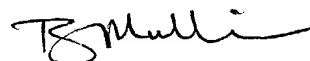
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Burton S. Mullins whose telephone number is 305-7063. The examiner can normally be reached on Monday-Friday, 9 am to 5 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are 305-1341 for regular communications and 305-1341 for After Final

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communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-0956.



Burton S. Mullins
Primary Examiner
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bsm
April 16, 2002